

REMARKS

Claims 33 and 42-46 have been amended. Claims 37-38 and 41 have been canceled without prejudice or disclaimer. Thus, the pending claims are 33-36, 39-40, and 42-46.

I. Formal Matters

The Examiner objects to the Brief Description of Figure 8 as failing to comply with the requirements of 37 C.F.R. §§ 1.821-1.825 because sequence identifiers are missing. Applicants have amended the specification to insert sequence identifiers in the Brief Description of Figure 8, thus obviating this objection.

II. Claim Objections

Claim 43 has been objected to for not being written in the proper Markush format. Applicants have amended claim 43 to recite the proper Markush format, thus obviating this objection.

III. Rejections under 35 U.S.C. § 112, ¶ 1:

Enablement

Claim 33, and dependent claims 34-36 and 39-46 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification to enable one skilled in the art to make and/or use the invention. The Examiner contends that the specification does not reasonably provide enablement for an isolated DNA molecule that hybridizes to SEQ ID NO: 2.

Claim 33 has been amended to recite an isolated DNA molecule that encodes a NIM1 protein that has at least 99% identity to SEQ ID NO: 3, wherein the protein is inducible in plants by 2,6-dichloroisonicotinic acid (INA) and where the induction leads to systemic acquired resistance in the plant. Support for this amendment can be

found at page 58 in Table 5 as well as on page 60, line 26-28. Table 5 discloses a NIM1 protein isolated from the Ws ecotype of *Arabidopsis* that is 99% identical to SEQ ID NO: 3, which was isolated from the Colombia ecotype of *Arabidopsis*. Page 60, line 26-28 discloses that NIM1-WS is induced in plants by INA.

Applicants submit that the instant specification enables the skilled person to isolate NIM1 proteins that are 99% identical to SEQ ID NO: 3 and to test whether such proteins are inducible in plants by INA. Having identified said protein, the skilled person will recognize that a finite number of DNA sequences will encode said protein.

Claim 41 was rejected for encompassing transgenic animals, including humans. Applicant has canceled claim 41 making this rejection moot.

In view of the claim amendments and the above remarks, Applicants respectfully submit that the enablement rejections under 35 U.S.C. § 112, first paragraph, have been overcome. Accordingly, it is respectfully requested that this rejection be withdrawn.

Written Description

Claims 33, and dependent claims 34-36 and 39-46 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed. In particular, the Examiner contends that the specification does not describe, within the full scope of the claims, DNA molecules that hybridize to SEQ ID NO: 2.

Claim 33 has been amended to recite an isolated DNA molecule that encodes a NIM1 protein that has at least 99% identity to SEQ ID NO: 3, wherein the protein is inducible in plants by 2,6-dichloroisonicotinic acid (INA) and where the induction leads to systemic acquired resistance in the plant. As stated above, Table 5 on page 58 describes a NIM1 protein that has 99% identity to SEQ ID NO: 3. Further, Table 5 describes the DNA sequence that encodes the NIM1 protein that has 99% identity to SEQ ID NO: 3 (See 3rd column, 8th row labeled “WS” section).

The instant application describes SEQ ID NO: 3 and fully describes the structure of a gene and protein embodied in amended claim 33. Thus, the skilled person would recognize that Applicant was in possession of the sequences of the DNA molecules that encode proteins that have 99% identity to SEQ ID NO: 3 at the time the application was filed. Further, the specification describes the induction of said proteins in plants by INA and the concomitant induction of systemic acquired resistance.

In view of the claim amendments and the above remarks, Applicants respectfully submit that the written description rejections under 35 U.S.C. § 112, first paragraph, have been overcome. Accordingly, it is respectfully requested that this rejection be withdrawn.

IV. Rejections under 35 U.S.C. § 112, ¶ 2:

Claims 33 and dependent claims 34-46 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Particularly, the Examiner asserted that the phrases “the coding sequence set forth in SEQ ID NO: 2,” “(X3),” and “(X1)” in claim 33 were not clear. In addition, the Examiner contends that it is not clear that the seed of claim 44 is transgenic.

Amended claim 33 has eliminated the phrases in question thus obviating the rejection. Claim 44 has been amended to recite that the transgenic seed comprises the chimeric gene thus obviating this rejection.

Claims 45 and 46 were rejected as being incomplete for omitting the steps involved in getting the chimeric gene into the plant. Claims 45 and 46 have been amended to add the steps of getting the chimeric gene into the plant thus obviating this rejection.

V. Double Patenting Rejections

Statutory

Claims 37 and 38 were rejected under 35 U.S.C. § 101 as claiming the same invention as that of prior US Patent No. 6,091,004. Applicants have canceled claims 37 and 38 making this rejection moot.

Nonstatutory

Claims 33-36 and 39-46 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of US Patent No. 6,091,004. Claims 37, 38 and 41 have been canceled making the rejection to these claims moot.

In view of the possibility that the scope of the claims may change in the course of prosecution, Applicants kindly request that the Examiner hold this rejection in abeyance until at least one set of claims has been allowed, at which point Applicants will file a terminal disclaimer if necessary.

Claims 33-46 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of US Patent No. 5,986,082. Claims 37, 38 and 41 have been canceled making the rejection to these claims moot.

In view of the possibility that the scope of the claims may change in the course of prosecution, Applicants kindly request that the Examiner hold this rejection in abeyance until at least one set of claims has been allowed, at which point Applicants will file a terminal disclaimer if necessary.

Claims 45 and 46 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of US Patent No. 6,031,153.

In view of the possibility that the scope of the claims may change in the course of prosecution, Applicants kindly request that the Examiner hold this rejection in abeyance until at least one set of claims has been allowed, at which point Applicants will file a terminal disclaimer if necessary.

No new matter has been added. Therefore, Applicant respectfully requests that the instant amendment be entered and receive favorable consideration. The Examiner

is invited to telephone the undersigned agent if any questions or concerns arise during examination.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gregory W. Warren". The signature is fluid and cursive, with the first name "Gregory" being more prominent.

Syngenta Biotechnology, Inc.
P.O. Box 12257
Research Triangle Park, NC 27709-2257
Date: 5/25/04

Gregory W. warren
Agent for Applicants
Registration No. 48,385
Telephone: 919-541-8646